

anaerobic vaginal flora was made. The patient was allergic to penicillin and was given ciprofloxacin 250mg as a single dose followed by metronidazole 400mg twice twice daily for 5 days and oxytetracycline 500mg four times a day for 10 days. Topical clotrimazole 1% / hydrocortisone 1% (Canesten-HC) was also prescribed for symptomatic relief and as prophylaxis in case of subsequent development of vaginal yeast infection. Cultures of the vaginal and urethral swabs were both positive for *Neisseria gonorrhoeae* (beta lactamase positive, auxotype NR, serotype IB 18, plasmids 2;6;4;4;24;5.) Culture of the vaginal secretions was negative for yeast infection and *Trichomonas vaginalis*. The ELISA test for chlamydia was also negative. The patient was seen for follow-up a month later when she was asymptomatic and clinically the vulval and vaginal swelling and erythema had resolved but a marked atrophic vulvo-vaginitis was now apparent. Gram staining for the vaginal secretions was typical of a poorly oestrogenised post-menopausal vaginal smear in that it showed persisting AV type bacterial flora and many parabasal cells were noted. The number of PMNLs were reduced and there were no Gram negative intracellular diplococci. Vaginal pH was 6.0 (Whatman pH paper narrow range pH 4–6). Repeat cultures for gonorrhoea (including on this occasion, rectal and throats swabs) were negative.

Gonococcal vulvo-vaginitis is a recognised condition in pre-pubertal females but I have been unable to find any previous reference to it occurring in an adult. This patient had had a hysterectomy thus excluding the cervix as the site of primary infection and although it is theoretically possible that the primary infection in this patient was that of gonococcal urethritis, clinically the main site of infection was very definitely the vagina. It has been suggested that in prepubertal females the thin vaginal mucosa and relatively alkaline vaginal pH permit colonisation by gonococci which may be acquired from fomites or sexual contact.^{4,5} In contrast the well oestrogenised thick vaginal mucosa and acid secretions (probably associated with H₂O₂-producing lactobacilli) of the adult pre-menopausal female are thought to protect the vagina from infection leaving the relatively alkaline cervical columnar epithelial cells as the main site of infection. It is probable that low oestrogen levels and associated atrophy of the vulvo-vaginal mucosa, lack of H₂O₂-producing labtobacilli and relatively alkaline vaginal pH in post-menopausal woman may mimic the prepubertal state and predispose to gonococcal infection. The case presented was very unusual in that the combination of her post-menopausal state, previous hysterectomy, casual intercourse with a man infected with PPNG and attendance at a genito urinary clinic before antimicrobial treatment is a rare occurrence which may explain why I have found no similar case in the literature. Patients in this age group are often not perceived to be sexually active, at least not with casual partners and it is fortunate that this

lady had an astute general practitioner who referred her before giving treatment. The patient made an interesting social comment when asked about her sexual encounter. Apparently in the particular holiday resort she visited, the local Greek men prefer middle-aged single, widowed or divorced women in that they are considered "safe" with regard to human immunodeficiency virus infection and possible attack from jealous partners. The case may indicate that gonococcal vulvo-vaginitis is not confined to prepubertal females and the social changes enlarge the group of patients who are at risk of sexually transmitted infection. Such patients should be warned of these risks and encouraged to take precautions if they have a casual sexual encounter.

AL BLACKWELL
Singleton Hospital,
Shetty, Swansea SA2 8QA, UK

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Chronic perianal ulcerations: role of *Trichomonas vaginalis*?

Trichomonas vaginalis is a flagellated protozoan which causes a sexually transmitted disease (STD) that usually affects women. Clinical symptoms in women are frequent, whereas for men the infection is often asymptomatic.¹ Rectal ulcerations with rectovaginal fistula² and reactive arthritis³ were observed in women with a trichomoniasis genital infection. In both cases, the antigen HLA-B 27 was positive. Recently, a 61-year-old, married, heterosexual man, presented with a 1 year history of chronic perianal ulcerations. There was no history of genital or oral involvement. Empirical local treatments with corticosteroids, anti-bacterial and antifungal creams were ineffective. He was on no regular medication and his general health was reasonably good.

Routine laboratory tests (virological, fungal and bacterial cultures from ulcers and faeces) were negative. The Diamond's medium cultures revealed *T vaginalis* and perianal biopsy showed a dense infiltrate of neutrophils in the upper dermis. Urethral cultures for *T vaginalis* were also positive whereas the patient exhibited no urogenital symptoms. Syphilis, HIV and chlamydial repeated serologies were negative as were amoebiasis, ascariasis and bilharziasis serologies. HLA-B 27 antigen was also negative. Panendoscopy of the digestive tract was normal. Genital examination of his spouse revealed an

inflamed cervix and *T vaginalis* was grown using Diamond's medium.

A single dose of 2 g oral metronidazole was administered to the patient and his spouse. He dramatically improved within 3 days with a complete resolution of the perianal ulcers. Subsequently, there was no recurrence of ulcerations in the 6 months following treatment.

Three mechanisms may explain the role of *T vaginalis* in perianal ulcers: (i) a superficial infection by *T vaginalis* from a preexistent and unknown dermatosis; (ii) a later toxic and allergic effects such as giardiasis,⁴ secondary colonisation by the parasite; (iii) a direct role due to the cysteine proteinases contained in *T vaginalis* that have a variety of important virulent properties such as cytoadherence and cytopathogenicity.^{5,6} These may lead to the development of ulcerations on mucous membranes, as well as on other tissues. Interestingly, no reference has

been found to perianal ulceration with *T vaginalis*.

F EL SAYED
J BAZEX

Département de Dermatologie
Vénérologie et Allergologie, Hôpital Purpan,
Place Baylac, 31059 Toulouse, France

Address correspondence to Prof J Bazex

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